

CLAIMS

1. A sprayer purifier cartridge system comprising:

a sprayer for spraying water, wherein said sprayer has a receiving structure for said purifier cartridge; and a

a purifier cartridge containing a substance for purifying water, said cartridge being attachable to the receiving structure of said sprayer,

wherein one of said sprayer and said purifier cartridge comprises a structure having at least one opening therein, which opening is at least partially surrounded by a material that has flexibility, and the other of said sprayer and said purifier cartridge comprises at least one hollow protrusion that fits into said at least one opening to permit the water to flow in at least one direction between said sprayer and purifier cartridge, wherein said cartridge is attachable to said sprayer to form a seal between said cartridge and said sprayer.
2. The sprayer purifier cartridge system of Claim 1 wherein there is additional material adjacent to said material at least partially surrounding said opening, and said material at least partially surrounding said at least one opening is thinner than the additional material adjacent thereto.
3. The sprayer purifier cartridge system of Claim 1 wherein said sprayer comprises a housing, and said housing has a recess for insertion of at least a portion of said purifier cartridge.
4. The sprayer purifier cartridge system of Claim 1 wherein said cartridge is disposable.
5. The sprayer purifier cartridge system of Claim 1 wherein said cartridge has two ends comprising a first end and a second end, an inlet and an outlet, and said inlet and outlet are located on the same end of said cartridge.
6. The sprayer purifier cartridge system of Claim 1 wherein said substance for purifying

water comprises at least one ion exchange resin.

7. The sprayer purifier cartridge system of Claim 1 wherein said cartridge comprises two side-by-side compartments.
8. The sprayer purifier cartridge system of Claim 1 wherein said side-by-side compartments have a cylindrical configuration and an opening therebetween for transmitting water between said compartments.
9. The sprayer purifier cartridge system of Claim 1 wherein said cartridge comprises an insertion aid.
10. The sprayer purifier cartridge system of Claim 1 wherein said insertion aid comprises a hole in said cartridge that mates with a pin on said sprayer.
11. The sprayer purifier cartridge system of Claim 5 wherein said inlet and said outlet comprise circular openings that have a diameter of about 5/16 inch.
12. The sprayer purifier cartridge system of Claim 11 wherein the centers of said inlet and said outlet openings are spaced about 1.5 inches apart.
13. The sprayer purifier cartridge system of Claim 1 wherein said receiving structure for said purifier cartridge comprises a structure with said at least one hollow protrusion, and said at least one hollow protrusion comprises a pair of spaced apart hollow posts.
14. The sprayer purifier cartridge system of Claim 13 wherein said purifier cartridge comprises a structure with said at least one opening, and said at least one opening comprises a pair of spaced apart openings that fit over said hollow posts, wherein the flexible material that at least partially surrounds said openings forms a leak-proof seal with said hollow posts.
15. A sprayer purifier cartridge system comprising:
 - a sprayer for spraying water, wherein said sprayer has a recess for insertion of at least a portion of a purifier cartridge and a receiving structure for said purifier cartridge; and a

a purifier cartridge containing a substance for purifying water, said cartridge having two ends comprising a first end and a second end, an inlet and an outlet, and said inlet and outlet are located on the same end of said cartridge, said cartridge being attachable to the receiving structure of said sprayer,

wherein one of said sprayer and said purifier cartridge comprises a structure having at least one opening therein, which opening is at least partially surrounded by a material that has flexibility, and the other of said sprayer and said purifier cartridge comprises at least one hollow protrusion that fits into said at least one opening to permit the water to flow in at least one direction between said sprayer and purifier cartridge, wherein said cartridge is attachable to said sprayer to form a seal between said cartridge and said sprayer.